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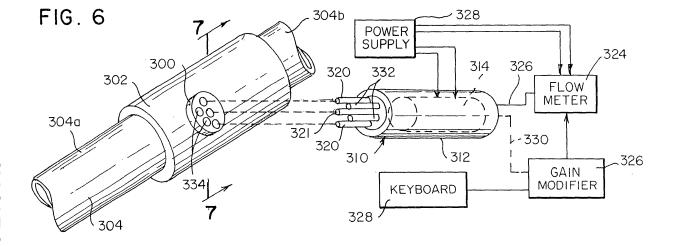
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(54) Magnetic flowmeter with removable electrodes

(57) Apparatus for measuring the rate of flow of a fluid in a conduit includes a receptor assembly arranged on the external surface of the conduit, and a removable external connector assembly including an electromagnet for establishing a magnetic field that extends transversely across the conduit, and a plurality of circumferentially arranged electrodes that are insertable into direct contact at their tips with the fluid in the conduit via sealable gland passages contained in the receptor assembly. A calibration adjustment arrangement is provided for adjusting the

calibration factor of the flow signal processing system as a function of the conduit cross-sectional area. In a first embodiment, the glands are self sealable, whereupon the gland passages are automatically closed when the electrodes are removed therefrom. In another embodiment, the gland passages are normally open and are formed in a compressible resilient gland body, whereby radial inward compression of the gland body effects closure of the gland passages. According to a further embodiment, a valve arrangement is provided for opening and closing the gland passages.





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Application Number EP 02 02 7709

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